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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,832	11/16/2001	Satoru Wakao	35.C15945	7584

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EXAMINER	
NGUYEN, LUONG TRUNG	
ART UNIT	PAPER NUMBER
2622	
MAIL DATE	DELIVERY MODE
10/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/987,832	WAKAO ET AL.	
	Examiner	Art Unit	
	LUONG T. NGUYEN	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7-14,16,17 and 19-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7-14,16,17 and 19-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/12/2007 has been entered.

Response to Arguments

2. Applicant's arguments filed 7/12/2007 have been fully considered but they are not persuasive.

Applicants argue that Kobayashi et al. discloses the use of a common key encryption system for encoding image data, not for generating verification data.

In response, the Examiner considers that Kobayashi et al. does disclose the use of a common key encryption system for generating verification data. Kobayashi et al. discloses that the data is encrypted by common key encryption system (column 54, lines 30-41). That indicates that a verification data is generated before the data is encrypted by common key encryption system.

The Applicants argue that the suggested substitution of the common key encryption system of Kobayashi et al. for the public key encryption system of Kondoh et al. would made for

all the public key cryptograph in Kondoh et al. Hence, the result would be a system using only common key encryption rather than a system having first verification data generation unit not using public key cryptography and a second verification data generation unit using public key cryptography.

In response, regarding claim 1, Applicants amended claim 1 with limitation "a first verification data generation unit which generates first verification data from the image data using first information and not using public key cryptography, and a second verification data generation unit which generates second verification data from the image data using second information and public key cryptography, if the first verification unit verifies that the image data is not altered. The Examiner considers that claim 1 as amended still does not distinguish from Kondo et al. in view of Kobayashi et al. references. Kondo et al. discloses a first verification data generation unit (MAC generating unit 11) which generates first verification data (MAC as shown in Figure 2, MAC 1 shown in Figure 9, step S1) from the image data and using first information (file header information) (see Col. 4, lines 60-67, Col. 5, lines 1-7 and Col. 10, lines 14-17); and a second verification data generation unit (MAC generating unit 88) adapted to generate second verification data from image data using second information (editing history) and public key cryptography, if it the first verification unit verifies that the image data is not altered (See Col. 10, lines 29-67). The Kondoh et al. reference does not explicitly show a first verification data generation unit adapted not using public key cryptography. However, Kobayashi et al. teaches this feature. Kobayashi et al. reference teaches in Figure 12, an image verification system comprising a verification data generation unit can common key cryptography method to

encrypting image data instead of only using public key cryptography (See Col. 54, lines 30-35 and Col. 10, lines 35-54).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 4-5, 7-14, 16-17, 19-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondoh et al. (US 6,968,058) in view of Kobayashi et al. (US 7,124,094).

Referring to claim 1, the Kondoh reference discloses in Figures 1, 8 and 9, an image verification system comprising an image generation device (digital camera system 100, see Col. 4, lines 47-59) and a first image verification device (alteration inspection unit 101, see Col. 5, lines 7-25 or image sever system 107, see Col. 9, lines 62-67), wherein said image generation device includes: an image data generation unit (image pickup device 2) which generates image data; and a first verification data generation unit (MAC generating unit 11) which generates first verification data (MAC as shown in Figure 2, MAC 1 shown in Figure 9, step S 1) from the image data and using first information (file header information) (see Col. 4, lines 60-67, Col. 5, lines 1-7 and Col. 10, lines 14-17), and wherein said first image verification device includes: a first verification unit (MAC verification unit 73, see Col. 10, lines 13-25) which verifies, using the image data, said first verification data and

said first information, whether the image data is altered or not and a second verification data generation unit (MAC generating unit 88) which generates second verification data from image data using second information (editing history) and public key cryptography, if the first verification unit verifies that the image data is not altered (See Col. 10, lines 29-67). However, the Kondoh reference does not explicitly show a first verification data generation unit not using public key cryptography.

The Kobayashi reference teaches in Figure 12, an image verification system comprising a verification data generation unit can common key cryptography method to encrypting image data instead of only using public key cryptography (See Col. 54, lines 30-35 and Col. 10, lines 35-54). The Kobayashi reference is evidenced that one of ordinary skill in the art at the time to see more advantages for the image verification system using common key cryptograph method to encrypting image data instead of only public key cryptography so that when an amount of image data is large, processing speed is higher for the common key encryption system because an amount of processing caused by encryption is reduced (See Col. 54, lines 35-41). For that reason, it would have been obvious one having ordinary skill in the art at the time of the invention was made to modify the image verification system of the Kondoh ('058) by providing the first verification data generation unit adapted not using public key cryptography as taught by Kobayashi ('094).

Referring to claim 2, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 1, and the Kondoh reference discloses wherein the first verification data generation unit generates the first verification data from the image data

using the first information (file header information), a first hash function (MD) (See Col. 1, lines 41-58) and common key cryptography (See Kobayashi's Col. 54, lines 30-41 and examiner's comments in claim 1); and wherein said second verification data generation unit generates said second verification data using a second hashing function and public key cryptography (See col. 9, lines 8-15 and 10, lines 19-67).

Referring to claim 4, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 1, and the Kondoh reference discloses wherein the second verification data generation unit disables generation of the second verification data, if the first verification unit verifies that the iamge data is altered (e.g., only the image is not altered, the image file input to image editing unit. The second verification data MAC2 depends on editing history, see Figure 9, S6-S7).

Referring to claim 5, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 1, and the Kondoh reference discloses wherein the first image verification device includes a memory (storage medium 70) which stores the first information (image header information and the second information (editing history) as shown in Figure 9 (see Col. 11, lines 1-5).

Referring to claim 7, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 1, and the Kobayashi reference discloses wherein the first information is an encryption key used in common key cryptography (See Col. 54, lines 30-41) and the Kondoh reference discloses said second information is a private key used for public key cryptography (See Col. 10, lines 55-67).

Referring to claim 8, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 1, and the Kondoh reference discloses wherein a second image verification device includes a second verification unit adapted to verify, using said image data, the second verification data and third information corresponding to said second information, whether said image data is altered or not (see Col. 10, lines 3-67).

Referring to claim 9, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 8, and the Kondoh reference discloses wherein the second information is a private key used for public key cryptography and the third information is a public key used for public key cryptography (see Col. 10, lines 29-61).

Referring to claim 10, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 8, and the Kondoh reference discloses wherein said second image verification device (image server system 107) is a server computer and said first image verification device (alteration inspection unit 101) is a client of the server computer as shown in Figures 1 and 8.

Referring to claim 11, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claims 2 and 8.

Referring to claim 12, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 1, and the Kondoh reference discloses wherein said image generation device is a digital camera (100) as shown in Figure 1.

Referring to claim 13, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 1.

Referring to claim 14, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 2.

Referring to claim 16, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 4.

Referring to claim 17, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 5.

Referring to claim 19, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 7.

Referring to claim 20, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected to claim 13, and the Kondoh reference discloses wherein said second device is an IC card as shown in Figure 12.

Referring to claim 21, the Kondoh reference discloses all subject matter as discussed with respected same comments to claim 10.

Referring to claim 22, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 8.

Referring to claim 23, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 9.

Referring to claim 24, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 10.

Referring to claim 25, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 11.

Referring to claim 26, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 12.

Referring to claim 27, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 1.

Referring to claim 28, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 2.

Referring to claim 29, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 7.

Referring to claim 30, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 4.

Referring to claim 31, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 5.

Referring to claim 32, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 1.

Referring to claim 33, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 2.

Referring to claim 34, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 7.

Referring to claim 35, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 4.

Referring to claim 36, the Kondoh and Kobayashi references disclose all subject matter as discussed with respected same comments to claim 1, except limitation "a computer-readable medium storing a program for implementing the image verification method." However, Official Notice is taken that a computer-readable medium storing such program for image verification is well known in the art. Therefore, it would have been obvious to include such computer-readable medium storing a program for image verification into the device of Kondoh and Kobayashi in order to obtain an image verification system which is operated by software.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571) 272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN
09/30/07

LUONG T. NGUYEN
PATENT EXAMINER